



# *Republic of South Africa*

## **EDICT OF GOVERNMENT**

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VC 8036 (2006) (English): Compulsory specification for circuit-breakers [By Authority of South Africa Government Gazette 06-Oct-2006]



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Compulsory Specification for

## **Circuit-breakers**

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**VC 8036**  
Ed. 3



**DEPARTMENT OF TRADE AND INDUSTRY****No. R. 967****6 October 2006****STANDARDS ACT, 1993****WITHDRAWAL AND REPLACEMENT OF THE COMPULSORY  
SPECIFICATION FOR CIRCUIT BREAKERS**

I, Mandisi Mpahlwa, Minister of Trade and Industry, hereby under Section 22(1)(a)(ii) of the Standards Act, 1993 (Act No. 29 of 1993), and on the recommendation of the Council of the South African Bureau of Standards, withdraw the compulsory specification for circuit breakers, and replace it with the compulsory specification, as set out in the schedule, with effect from the date 2 months after the date of publication of this notice.



M Mpahlwa  
Minister of Trade and Industry

## SCHEDULE

### **Compulsory specification for circuit breakers**

#### **1 Scope**

1.1 This specification covers circuit breakers with moulded cases the main contacts of which are intended to be connected to circuits with rated voltages not exceeding 1000 V ac or 1500 V dc., rated currents not exceeding 125A and a rated ultimate short circuit breaking capacity ( $I_{cu}$ ) not exceeding 10 kA.

1.2 This specification does not cover circuit breakers incorporating residual current protection (earth leakage protection).

#### **2 Definition**

For the purpose of this specification the following definition applies:

**Circuit breaker:** A mechanical switching device, capable of making, carrying and breaking currents under normal circuit conditions and also making, carrying for a specified time, and breaking currents under specified abnormal circuit conditions such as a short circuit or an earth fault.

#### **3 Requirements**

3.1 A circuit breaker shall be safe and shall function safely and correctly during normal and abnormal circuit conditions.

Compliance with this requirement shall be proven by compliance with the requirements of either:

3.2 SANS 556-1 *Low-voltage switchgear*, Part 1- *Circuit breakers* as published in Government Notice 39 of 28 January 2005 (Government Gazette 27179).

Or alternatively, for the period up to 5 years from the date of final publication of this Compulsory Specification:

3.3 SANS 60947-2 / IEC 60947-2:1995, *Low-voltage switchgear and controlgear – Part 2: Circuit-breakers*, as published by Government Notice No. 411 of 27 March 1998, as modified in 3.4 and 3.5

3.3.1 The power-frequency recovery voltage, as given in 8.3.2.2.6 and 8.3.3.4 (table 13) of the said SABS IEC 60947-2:1995, for a circuit-breaker with a maximum operational voltage of 220/380 V a.c. to 240/415 V a.c. (inclusive), shall be 252/440 V a.c.

## 3.3.2

**Table 11 — Values of power factors and time constants corresponding to test currents**

1	2	3	4	5	6	7
Test current <i>I</i> kA	Power factor			Time constant ms		
	Short-circuit	Operational performance capability	Overload	Short-circuit	Operational performance capability	Overload
$I \leq 10$	0,45 - 0,5	0,8	0,45 – 0,5	5	2	2,5

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